

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Work Planned for the Period 08.07.2019 to 14.07.2019

Construction work for Moray East Offshore Wind Farm commenced on the 18th May 2019.

The key aim of the Weekly Notice of Operations is to give a global view of activities and vessels involved. Questions regarding the operations will be welcome preferably well in advance of each construction activity.

Moray East is developing the Moray East Offshore Wind Farm in the Outer Moray Firth on the south eastern area of the Smith Bank located to the north of the Aberdeenshire and Moray coast. The development will consist of 100 offshore wind turbines (WTGs) (with a total capacity of approximately 950 MW) and three Offshore Substation Platforms (OSPs). Water depths in the Moray East site range from approximately 38 m below LAT to 54 m below LAT. The generated power will be transmitted to the grid via three subsea export cable circuits to the landfall location at Inverboynie bay on the Aberdeenshire coast. The onshore export cables continue underground to the Moray East substation currently under construction near New Deer. The Moray East offshore development boundary is shown in black on Figure 1 below. Details of location of work activities within this area will be provided as work progresses.



Figure 1 - Moray East Offshore Development Boundary

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

It is currently anticipated that weather permitting offshore construction works will be carried out year-round and on a continuous basis (i.e. 24 hour working, seven days a week) unless notified otherwise.

Moray East's Marine Coordination Centre in Fraserburgh is manned 24 hours, 7 days per week.

The construction works, which have commenced from on the 18th May 2019, are as follows:

- Piling operations (detailed in this notice);
- Guard vessel duties (detailed in this notice).

1 Contact Details for Marine Coordination

The following contact can provide more information if required. Please note that specific queries can also be addressed to the relevant vessel or shore based representative.

Telephone Number (Day Operations)	+44 (0) 778 706 5714
Emergency Contact (24/7)	+44 (0) 1346 511 838
Marine Coordinator Email	MarineCoordination.MORAYEAST@Morayeast.com
Address	Dalrymple Hall, Dalrymple St, Fraserburgh, AB43 9BD

2 Completed Operations

2.1 Moray East Construction Markers

Moray East has completed the deployment of nine construction marker buoys around the Moray East site. The marker buoys will remain in place until after construction of the Moray East Offshore Wind Farm is complete. The co-ordinates for the as-built marker buoys are provided in the Table 1 below.

Table 1 – Marker buoy locations

Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 1 - North Cardinal Buoy, Pillar shaped with a north cardinal shaped top mark, exhibiting a Quick (Q) White (W) light character and AIS.	58° 18' 6.600" N	2° 41' 4.800" W	518481.96	6462358.27
Buoy 2 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 16' 48.300" N	2° 37' 55.380" W	521579.08	6459952.33
Buoy 3 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 15' 8.460" N	2° 35' 57.300" W	523521.05	6456875.58

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Name	WGS84		WGS84 UTM Zone 30N	
	Latitude (dms)	Longitude (dms)	Easting (m)	Northing (m)
Buoy 4 - East Cardinal Buoy, Pillar shaped with an east cardinal shaped top mark, exhibiting a Very (V) Q (3) 5 second (s) W light character and AIS.	58° 10' 44.10" N	2° 32' 45.85" W	526697.39	6448719.65
Buoy 5 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 7' 49.680" N	2° 35' 20.640" W	524201.44	6443309.27
Buoy 6 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 6' 43.980" N	2° 38' 19.860" W	521280.40	6441260.65
Buoy 7 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 4' 57.240" N	2° 47' 9.360" W	512624.16	6437922.64
Buoy 8 – South Cardinal, Pillar shaped with a south cardinal shaped top mark, exhibiting a V Q (6) + L Fl 10s W light character and AIS.	58° 4' 1.140" N	2° 52' 6.660" W	507757.35	6436175.21
Buoy 9 - Special Mark Buoy, Pillar shaped with a yellow 'x' shaped top mark, exhibiting a Fl Y 5s light character.	58° 8' 37.080" N	2° 50' 37.080" W	509205.67	6444712.15

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01



Figure 2 - Layout of demarcation buoyage

3 Piling Operations

GeoSea NV Geotechnical & Offshore Solutions have been contracted by Moray East to carry out pile foundation installation at the Moray East site. The vessels associated with the planned works are detailed in Section 3.1 below.

The piling operations commenced on the 19th May 2019 and are scheduled to take place over a period of approximately 11 months. Information on the WTG and OSP foundation locations in the Moray East site and the piling operations anticipated in the next four weeks are provided in Sections 3.2 and 3.4 below.

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

3.1 Vessels associated with the planned works

3.1.1 Pin Pile Support Vessel

MV Normand Service	
General Description and Dimensions:	DP 2 PSV vessel LOA: 88.0 m, Beam: 18.0 m, Draught: 4.5 m
Call Sign:	LAFR8
MMSI:	257062690
On Board Contact:	Mob: +32 486 36 42 31
Offshore Manager / Party Chief:	Tobe Possimiers/Hans Miedema
E-mail:	possemiers.tobe@deme-group.com
Onshore Representative:	Edward Maycock



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

3.1.2 Pin Pile Installation Vessel

MV Apollo	
General Description and Dimensions:	Offshore Heavy Lift DP2 jack up vessel LOA: 89 m, Beam: 45 m, Draught: 15 m
Call Sign:	LXBP
MMSI:	253586000
On Board Contact:	Mob: +32 486 36 42 31
Offshore Manager / Party Chief:	Tobe Possimiers/Hans Miedema
E-mail:	possemiers.tobe@deme-group.com
Onshore Representative:	Edward Maycock



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

3.2 Foundation Locations

Foundation locations for piling operations are shown in Table 2 below. Locations where piling has been completed are highlighted in Figure 3 – Turbine location map.

Table 2 – WTG locations and Installation Status

Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-A01	58° 4.550' N	2° 52.147' W	
ME-A02	58° 5.158' N	2° 52.144' W	
ME-B02	58° 5.147' N	2° 50.570' W	
ME-B03	58° 5.755' N	2° 50.567' W	
ME-B04	58° 6.364' N	2° 50.564' W	
ME-B05-OFF	58° 6.967' N	2° 50.544' W	
ME-B13	58° 11.838' N	2° 50.540' W	
ME-B14	58° 12.446' N	2° 50.538' W	
ME-C05	58° 6.961' N	2° 48.986' W	
ME-C07	58° 8.177' N	2° 48.980' W	
ME-C08	58° 8.785' N	2° 48.977' W	
ME-C09	58° 9.394' N	2° 48.973' W	
ME-C10	58° 10.002' N	2° 48.970' W	
ME-C11	58° 10.610' N	2° 48.967' W	
ME-C12	58° 11.218' N	2° 48.964' W	
ME-C13	58° 11.826' N	2° 48.961' W	
ME-C14	58° 12.435' N	2° 48.958' W	08/07/2019
ME-C15	58° 13.043' N	2° 48.955' W	
ME-C16	58° 13.651' N	2° 48.951' W	
ME-D04	58° 6.341' N	2° 47.414' W	
ME-D05	58° 6.949' N	2° 47.410' W	
ME-D07	58° 8.166' N	2° 47.403' W	
ME-D08	58° 8.774' N	2° 47.399' W	
ME-D09	58° 9.382' N	2° 47.396' W	
ME-D10	58° 9.990' N	2° 47.392' W	
ME-D11	58° 10.598' N	2° 47.389' W	
ME-D12	58° 11.207' N	2° 47.385' W	
ME-D13	58° 11.815' N	2° 47.381' W	
ME-D14	58° 12.423' N	2° 47.378' W	
ME-D15	58° 13.031' N	2° 47.374' W	
ME-D16	58° 13.639' N	2° 47.371' W	
ME-D17	58° 14.248' N	2° 47.367' W	
ME-E04	58° 6.329' N	2° 45.838' W	
ME-E05	58° 6.937' N	2° 45.834' W	
ME-E19	58° 15.452' N	2° 45.778' W	

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-F04	58° 6.317' N	2° 44.263' W	
ME-F21	58° 16.656' N	2° 44.187' W	
ME-G05	58° 6.913' N	2° 42.683' W	
ME-G06	58° 7.521' N	2° 42.678' W	
ME-G07	58° 8.129' N	2° 42.673' W	
ME-G09	58° 9.345' N	2° 42.663' W	
ME-G10	58° 9.954' N	2° 42.658' W	
ME-G11	58° 10.562' N	2° 42.653' W	
ME-G13	58° 11.778' N	2° 42.643' W	05/07/2019
ME-G15	58° 12.995' N	2° 42.633' W	27/06/2019
ME-G16	58° 13.603' N	2° 42.629' W	24/06/2019
ME-G17	58° 14.211' N	2° 42.624' W	17/06/2019
ME-G18	58° 14.819' N	2° 42.619' W	16/06/2019
ME-G19	58° 15.428' N	2° 42.614' W	09/06/2019
ME-G20	58° 16.036' N	2° 42.609' W	
ME-G21	58° 16.644' N	2° 42.604' W	
ME-G22	58° 17.252' N	2° 42.599' W	
ME-H05	58° 6.900' N	2° 41.107' W	
ME-H06	58° 7.508' N	2° 41.102' W	
ME-H07	58° 8.116' N	2° 41.096' W	
ME-H08	58° 8.724' N	2° 41.091' W	
ME-H09	58° 9.333' N	2° 41.086' W	
ME-H10	58° 9.941' N	2° 41.080' W	
ME-H13	58° 11.765' N	2° 41.064' W	04/07/2019
ME-H14	58° 12.374' N	2° 41.059' W	28/06/2019
ME-H16	58° 13.590' N	2° 41.048' W	23/06/2019
ME-H17	58° 14.198' N	2° 41.042' W	19/06/2019
ME-H18	58° 14.806' N	2° 41.037' W	
ME-H19	58° 15.415' N	2° 41.032' W	08/06/2019
ME-H20	58° 16.023' N	2° 41.026' W	
ME-H21	58° 16.631' N	2° 41.021' W	
ME-H22	58° 17.239' N	2° 41.015' W	
ME-I06	58° 7.495' N	2° 39.526' W	
ME-I07	58° 8.103' N	2° 39.520' W	
ME-I19	58° 15.401' N	2° 39.450' W	05/06/2019
ME-I20	58° 16.010' N	2° 39.444' W	07/06/2019
ME-J07	58° 8.090' N	2° 37.943' W	
ME-J08	58° 8.698' N	2° 37.937' W	
ME-J09	58° 9.306' N	2° 37.930' W	
ME-J10	58° 9.914' N	2° 37.924' W	
ME-J12	58° 11.131' N	2° 37.912' W	

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Turbine ID	Latitude (DD MM.mmm)	Longitude (DD MM.mmm)	Piling Complete
ME-J13	58° 11.739' N	2° 37.905' W	02/07/2019
ME-J14	58° 12.347' N	2° 37.899' W	30/06/2019
ME-J16	58° 13.563' N	2° 37.886' W	21/06/2019
ME-J17	58° 14.172' N	2° 37.880' W	02/06/2019
ME-J18	58° 14.780' N	2° 37.874' W	20/06/2019
ME-J19-OFF	58° 15.383' N	2° 37.887' W	
ME-K09	58° 9.292' N	2° 36.353' W	
ME-K10	58° 9.900' N	2° 36.346' W	
ME-K11	58° 10.509' N	2° 36.339' W	
ME-K16	58° 13.550' N	2° 36.306' W	31/05/2019
ME-K17-OFF	58° 14.189' N	2° 36.133' W	30/05/2019
ME-L09	58° 9.278' N	2° 34.775' W	
ME-L11	58° 10.494' N	2° 34.761' W	
ME-L12	58° 11.103' N	2° 34.754' W	
ME-L13	58° 11.711' N	2° 34.747' W	
ME-E18	58° 14.844' N	2° 45.782' W	
ME-E14	58° 12.411' N	2° 45.798' W	07/07/2019
ME-I18	58° 14.793' N	2° 39.455' W	
ME-F08	58° 8.750' N	2° 44.245' W	
ME-G08	58° 8.737' N	2° 42.668' W	
ME-H11	58° 10.549' N	2° 41.075' W	
ME-C04	58° 6.353' N	2° 48.989' W	
ME-C02	58° 5.136' N	2° 48.995' W	
ME-D06	58° 7.557' N	2° 47.407' W	
ME-OSP1	58° 7.546' N	2° 45.830' W	
ME-OSP2	58° 13.007' N	2° 44.214' W	
ME-OSP3	58° 9.928' N	2° 39.502' W	

MORAY EAST WEEKLY NOTICE OF OPERATIONS

Issue Date	08/07/2019
Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

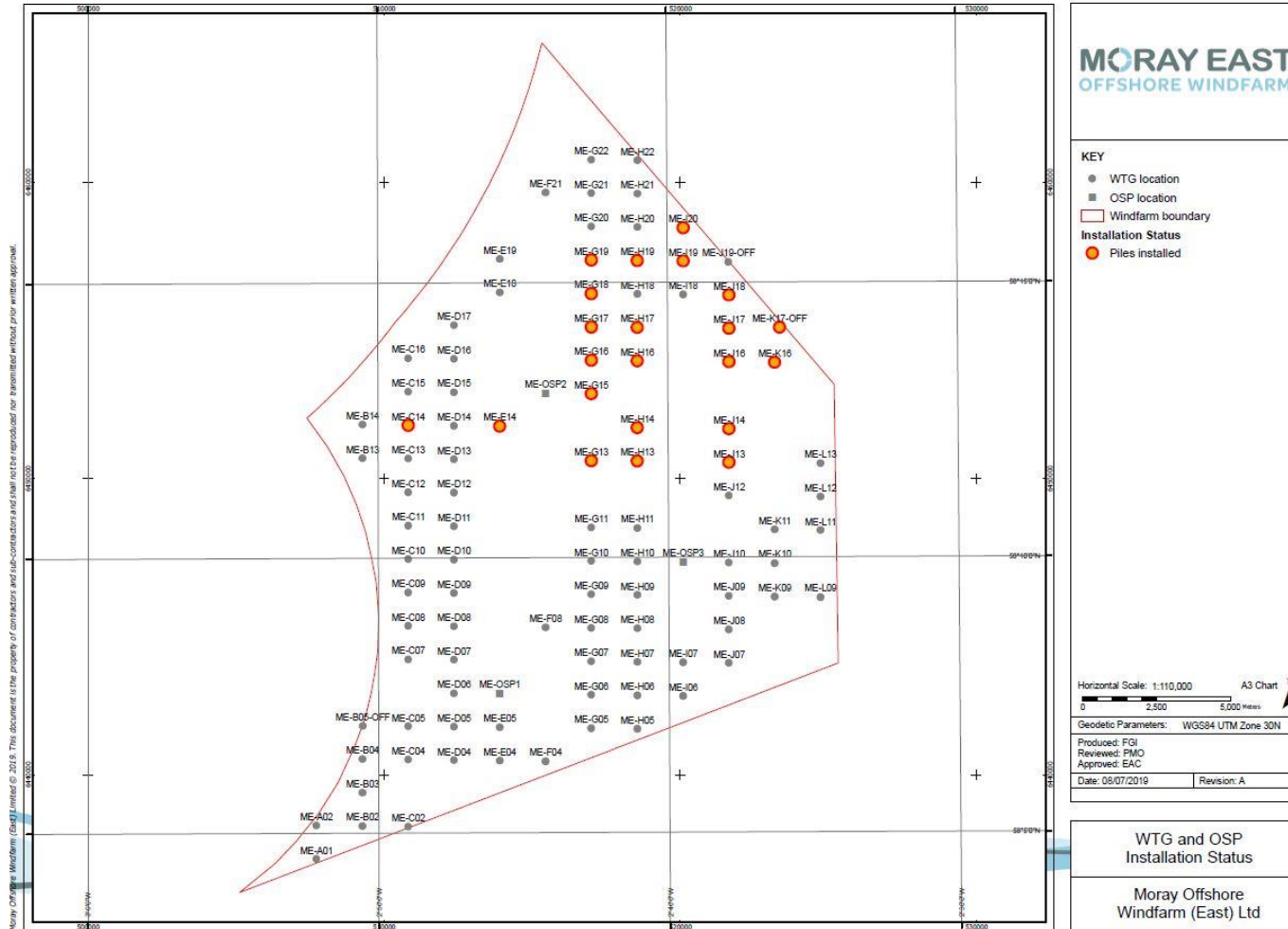


Figure 3 – Turbine location and Installation Status

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

3.3 Piling Operations

Pile foundations will be installed by the Heavy Lift Vessel (HLV) Apollo which will arrive at the proposed foundation installation location and will be positioned in readiness for the foundation installation works. This will involve the vessel entering DP2 and then jacking up to operational draft.

Pile foundations will be installed by the use of a Pile Installation Template (see Figure 4 below), where 3 pin piles will be stabbed into the seabed through the piling temple then driven to target depth in readiness for the Jacket installation.

The Piling Template will then be recovered to the Apollo, then she will relocate to the next location for installation.

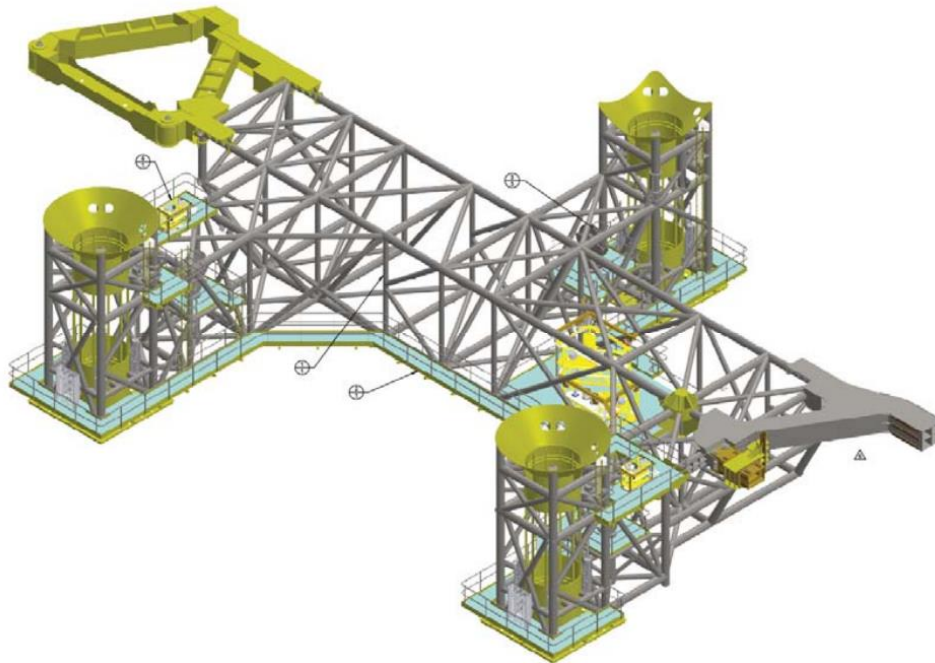


Figure 4 – Piling Template

3.4 Piling works for the month ahead

Piling works are expected to take place for the next four weeks from the date this notice is issued in the area highlighted in yellow in Figure 5 below. Construction works could take place out of this area due to unforeseen circumstances.

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

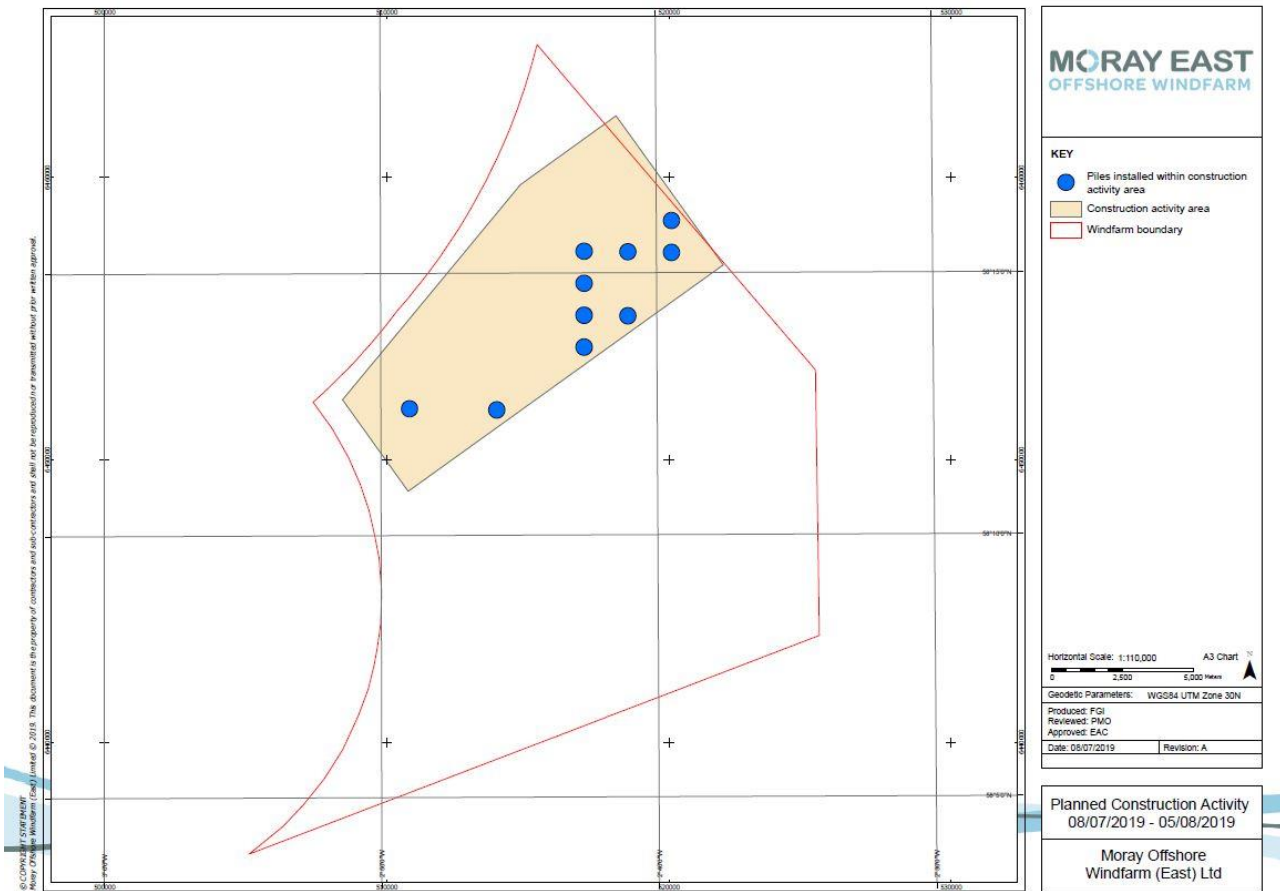


Figure 5 – Piling activity area expected for between 01st July and 29th July 2019

The latitude and longitude for the piling activity in the above highlighted area is referenced in the Table 3 below.

Table 3 – Coordinates for piling activity area expected for 01st July and 29th July 2019

ID	Latitude (DMS)	Longitude (DMS)	Latitude (DM)	Longitude (DM)
1	58° 16' 42.702" N	2° 44' 55.247" W	58° 16.712' N	2° 44.921' W
2	58° 18' 1.052" N	2° 41' 26.331" W	58° 18.018' N	2° 41.439' W
3	58° 15' 9.760" N	2° 37' 35.210" W	58° 15.163' N	2° 37.587' W
4	58° 10' 51.850" N	2° 49' 1.450" W	58° 10.864' N	2° 49.024' W
5	58° 12' 36.797" N	2° 51' 23.523" W	58° 12.613' N	2° 51.392' W

The above figure and coordinates for the area where piling works are expected in the month ahead will be updated on a weekly basis through the Weekly Notice of Operations together with confirmation of the piles that have been installed in the previous week.

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

4 Guard Vessels

Kinnaird Marine Limited has been appointed by Moray East to provide guard vessels during the piling campaign. Apart from times of extreme weather, there will always be at least one guard vessel on station during piling operations. The guard vessel’s primary duty is security of the construction site by informing and warning non-construction vessels of the ongoing activities and associated Safety Zones.

Mariners are requested to navigate with caution and keep continued watch on VHF Ch. 16, 87 and 73 when navigating the area.

4.1 Guard Vessel – GV Replenish

GV Replenish	
General Description and Dimensions:	Guard Vessel LOA: 24.36 m, Beam: 7.17 m, Draught 3.48 m
Call Sign:	MASY7
MMSI:	235055180
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	gvreplenish@gmail.com
Onshore Representative:	Enrique Alvarez



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

4.2 Guard Vessel – KMS Ability N294

KMS Ability N294	
General Description and Dimensions:	Guard Vessel LOA: 23.14 m, Beam: 6.63 m, Draught: 3.20 m
Call Sign:	MDFW3
MMSI:	235014666
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	gvability@gmail.com
Onshore Representative:	Enrique Alvarez



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

5 University of Aberdeen Noise recorders.

Please be aware they plan to deploy three replicate sound recorders, each on a short sub-surface mooring ~50 m apart, at a location where they are likely to hear a series of pile installation at distances of 1-10km in the below positions. They will utilize the vessel Waterfall for the deployment.

LATITUDE	LONGITUDE
58.2346666667	-2.76580000
58.2349833333	-2.76520000
58.2353000000	-2.76458333

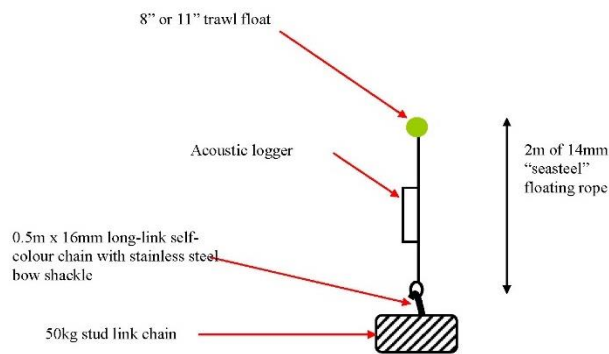


Diagram of PAM moorings sub-sea for ROV recovery

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Deployment Vessel: Waterfall

Waterfall	
General Description and Dimensions:	Workboat, UK MCA Cat 2 LOA: 16 m, Beam: 6.5 m, Draught: 1.70 m
Call Sign:	2CBT4
MMSI:	235071392
On Board Contact:	Master
Offshore Manager / Party Chief:	N/A
E-mail:	bill@moraymarine.com
Onshore Representative:	Holly Best



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

6. Construction works Description– Horizontal Directional Drilling (HDD)

Please be advised that Moray Offshore Windfarm (East) Limited (Moray East) will commence HDD construction works scheduled to commence 11th July 2019. There will be a total of 3 phases during 2019 with the second and third phase planned for 3rd of August and 2nd of October.

Anchors will be deployed in readiness for the 1st phase of HDPE duct pipe installation utilising the vessel Voe Jarl and will remain in place until phase 3 is complete. There will be three main ACTIVITIES as part of each phase of these works at the HDD location: HDPE duct pipe tow to HDD location, cable duct pull in and post pull in burial works on the sea bed. Each complete phase should take circa 22 days to complete. The vessel details for each phase are provided below, as well as the overall programme for Phase 1.

7. Anchor installations Inverboyndie Bay

Figure 1 below shows the anchor locations at the HDD location near Inverboyndie Bay and Table 1 provides the coordinates of the relevant anchor positions.

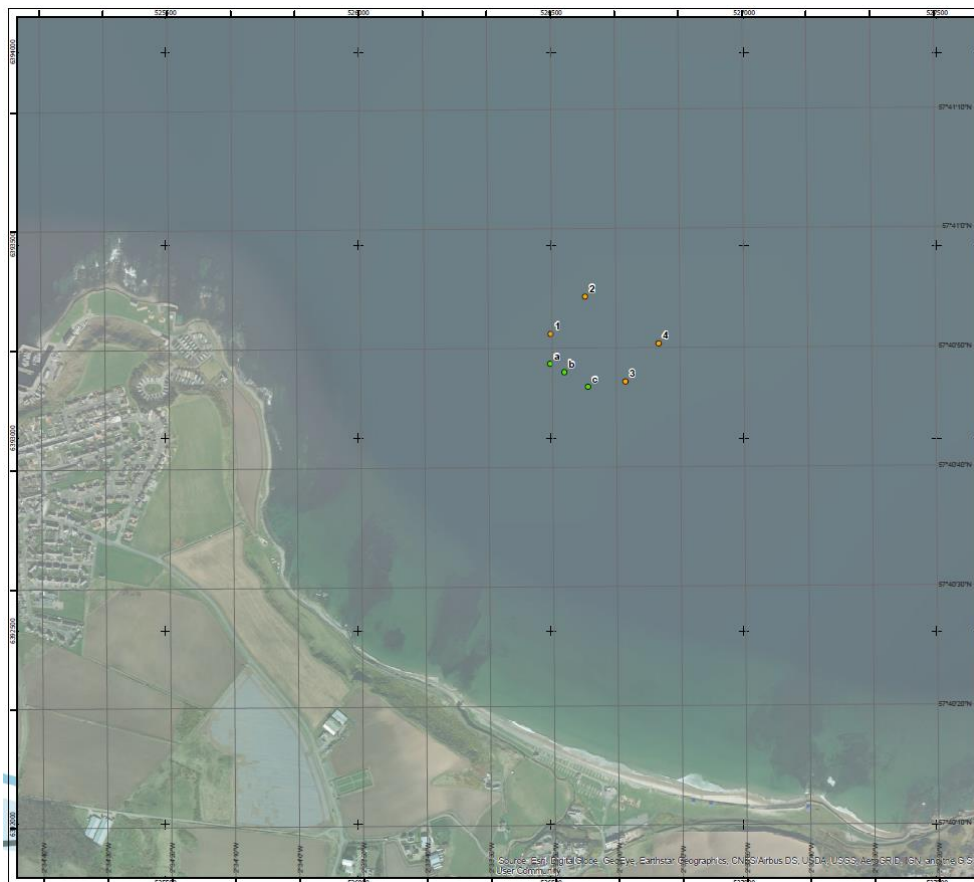


Figure 6 - Anchor locations shown on satellite map.

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Table 4 - Anchor positions Lat/Long

ID	Longitude	Latitude
1	57° 40.852 N	2° 33.338 W
2	57° 40.904 N	2° 33.247 W
3	57° 40.785 N	2° 33.143 W
4	57° 40.839 N	2° 33.056 W
a	57° 40.811 N	2° 33.339 W
b	57° 40.799 N	2° 33.302 W
c	57° 40.778 N	2° 33.241 W

8. Main working vessel anchor installation and duct pull in – Multicat and DSV
— Voe Jarl

Voe Jarl:	
General Description and Dimensions:	Multicat Anchoring and Dive Vessel
Call Sign:	MSBB3
MMSI:	210779000
On Board Contact:	Master 07502297888
Offshore Manager / Party Chief:	Vessel Master
E-mail:	voejarl@delta-marine.scot
Onshore Project Representative:	Gareth Ellis Gareth.ellis@morayeast.com



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

9. ACTIVITY 1 - Transit route for HDPE pipe tow Cromarty Firth to Inverboynie Bay

The HDPE pipes will be towed individually to the HDD area at Inverboynie Bay following the transit route shown in Figure 2 below. The route coordinates are provided in Table 2. The vessels engaged in the towing of the pipes are identified below.

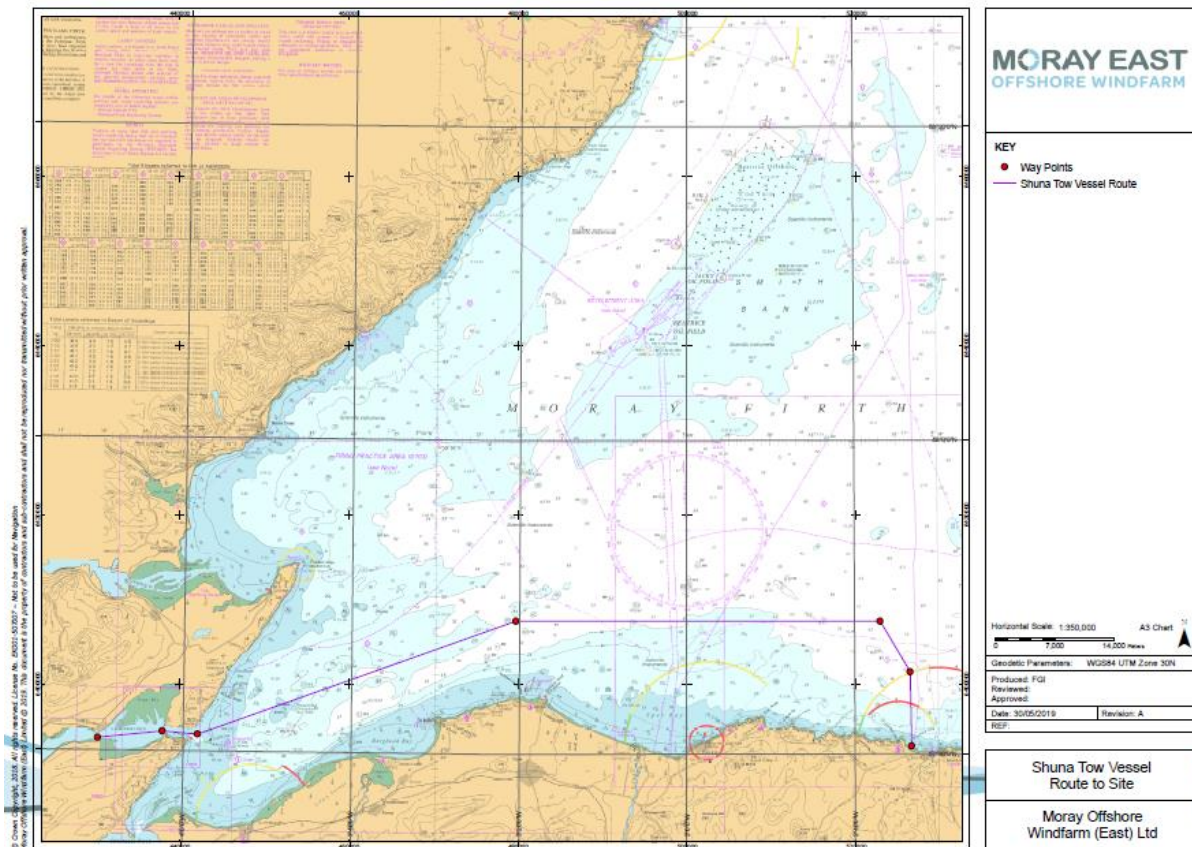


Figure 7 - Transit route/waypoints for the planned tow

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Table 5 – Transit route waypoints

Way Point	Lat	Lon	Dist to Next	Total	Remarks
1	57° 40.810' N	004° 10.160' W	4.24NM	00.00 NM	Wet stow location
2	57° 41.280' N	004° 02.480' W	2.26 NM	04.24 NM	
3	57° 41.110' N	003° 58.270' W	20.77 NM	06.50 NM	
4	57° 48.500' N	003° 20.450' W	21.64 NM	27.27 NM	
5	57° 48.500' N	002° 36.950' W	23.93NM	48.91 NM	
6	57° 45.250' N	002° 33.410' W	04.77NM	72.83NM	
7	57° 40.530' N	002° 33.280' W		77.66NM	Boyndie Bay

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Shuna	
General Description and Dimensions:	Towing vessel
Call Sign:	VQBP3
MMSI:	235007528
On Board Contact:	Ian Beaton 07713064672
Offshore Manager / Party Chief:	Vessel Master
E-mail:	admin@seafastltd.co.uk
Onshore Representative:	Gareth Ellis Gareth.ellis@morayeast.com



MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Rhona	
General Description and Dimensions:	Tail end vessel
Call Sign:	VQBP3
MMSI:	235007528
On Board Contact:	Ian Beaton 07713064672
Offshore Manager / Party Chief:	Vessel Master
E-mail:	admin@seafastltd.co.uk
Onshore Representative:	Gareth Ellis Gareth.ellis@morayeast.com



10. ACTIVITY 2 – HDD duct pull in works [RESTRICTED AREA]

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Once the HDPE pipes are on location they will be connected up to the HDD drill string via a pulling head and using divers from the Voe Jarl. Then pull back through the punchout hole will commence, drawing the ducts back to landfall as shown in Figure 4 below.

A restricted area as described in Figure 3 and the coordinates in table 3 will be required for the operation lasting 72 hours. (Weather and operations dependent).

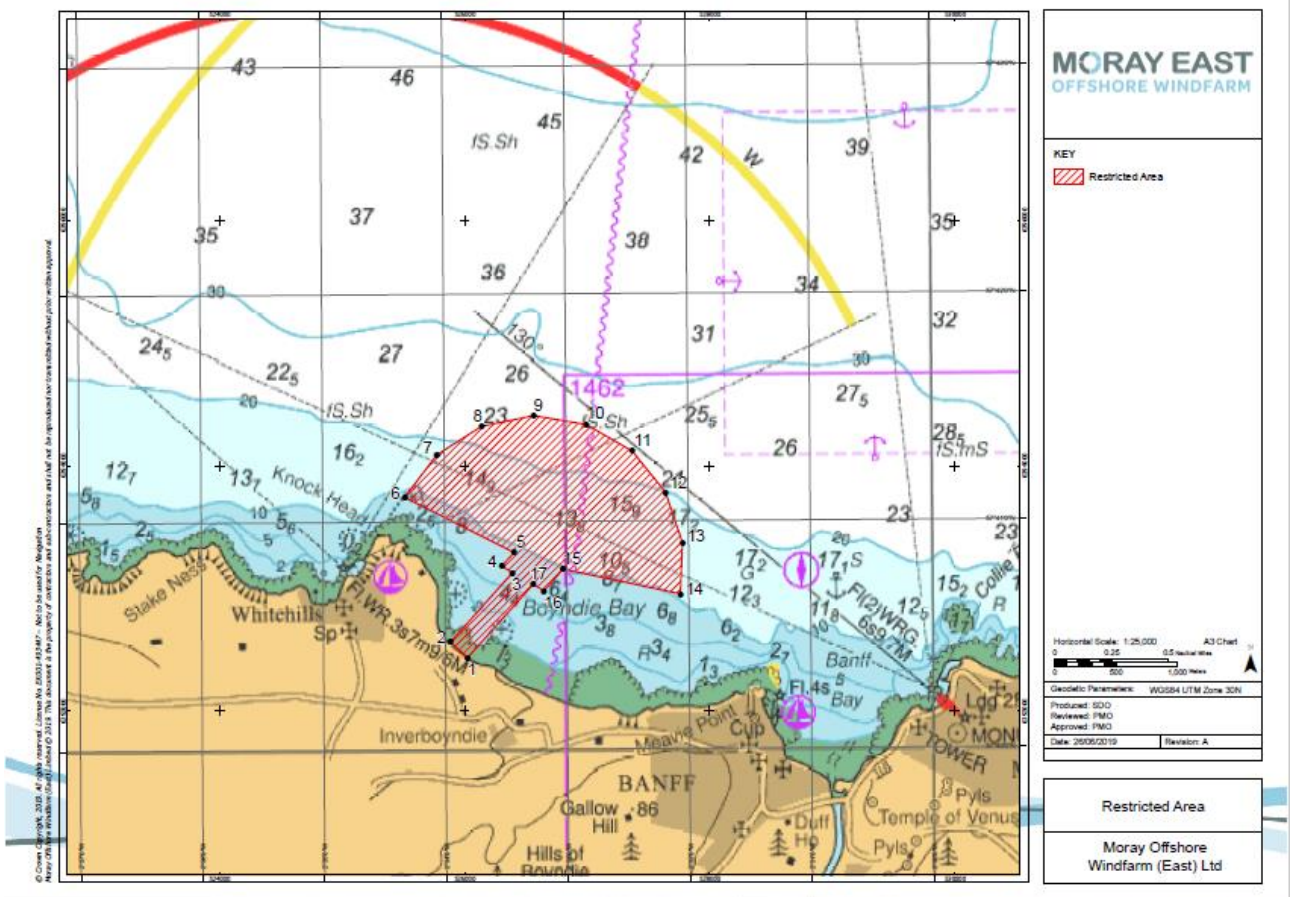


Figure 8 – Restricted area for use during duct pull in

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Table 6 – Restricted area coordinates *duct pull in only*

Location	WGS84	
	Latitude	Longitude
1	57° 40.405'N	2° 33.820'W
2	57° 40.474'N	2° 33.960'W
3	57° 40.778'N	2° 33.448'W
4	57° 40.806'N	2° 33.536'W
5	57° 40.866'N	2° 33.434'W
6	57° 41.111'N	2° 34.328'W
7	57° 41.297'N	2° 34.063'W
8	57° 41.421'N	2° 33.693'W
9	57° 41.466'N	2° 33.265'W
10	57° 41.426'N	2° 32.835'W
11	57° 41.308'N	2° 32.459'W
12	57° 41.126'N	2° 32.186'W
13	57° 40.904'N	2° 32.052'W
14	57° 40.680'N	2° 32.070'W
15	57° 40.791'N	2° 33.032'W
16	57° 40.697'N	2° 33.190'W
17	57° 40.725'N	2° 33.279'W

The duct to drill pipe connection will be made on the Voe Jarl. The Dive spread will be situated on the Voe Jarl which will be moored up on the anchor points mentioned above. These operations are planned between the hours of 07:00 – 19:00 or all daylight hours if required, with the Dive team mobilising daily from Macduff and Transferring via Support vessel Rhona, with the route plan defined below.



Figure 9 – Daily transit routes from Macduff base port to site

Table 7 – Daily transit route waypoints from Macduff base port to site

Way Point	Lat.	Long.	Dist.to next	Tot	Remarks
1	57° 40'.20'' N	002° 30'.40'' W	0.84NM	00.00 NM	Entrance to Macduff
2	57° 40'.53'' N	002° 33'.20'' W	0.94 NM	1.78 NM	Site

11. ACTIVITY 3 - Post pull in dive works

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

A restricted area which is described by the anchor pattern of the DSV Voe Jarl in Table 1 above will be used for the duct pull operation which is expected to last 22 days weather permitting. The ducts will be lowered beneath the sea bed level by airlifting and secured in place with temporary concrete mattress. The Ducts will stay buried in the sea bed until the final cable installation and burial stage of the project in summer 2020.

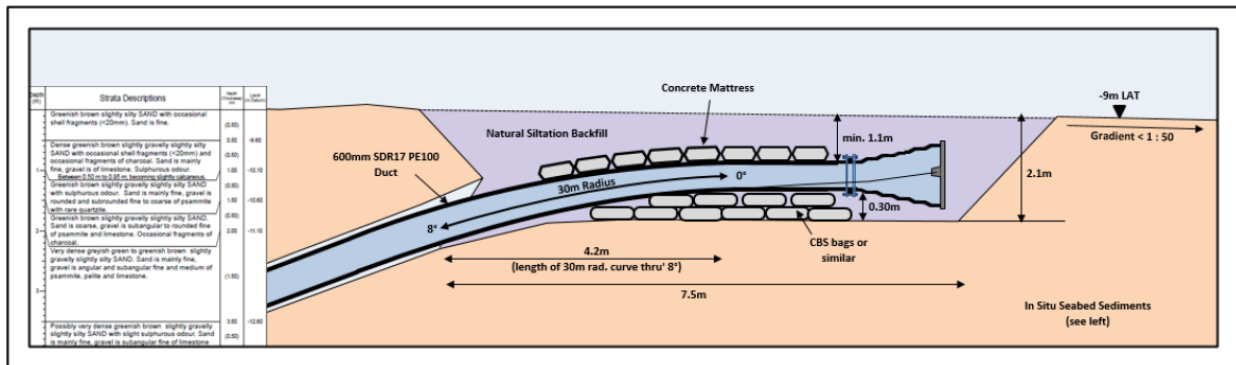


Figure 10 – As left detail of ducts in seabed

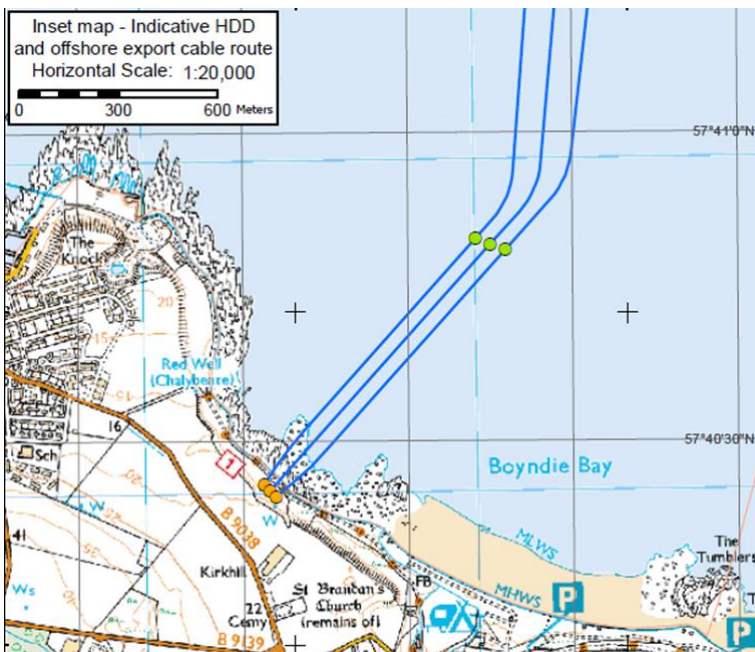


Figure 11 – Overview of export cable layout at landfall area, (green points show location of Figure 5 detail)

12. General Safety Advice for HDD operations

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Whilst Diving operations are ongoing all vessels are requested to maintain their vessel and gears **outwith of the Restricted Area (described by RESTRICTED AREA in Figure 8 and Table 6 above)** from the Voe Jarl when the dive flag is shown. Mariners are requested to give all construction and support vessels a wide berth, to navigate with caution, to use all means appropriate to aid safe navigation as defined under COLREGs Rule 7, and keep continued watch on VHF Ch. 16 when navigating the area.
The Voe Jarl will display the Dive Flag whilst operations are ongoing (Figure 7).

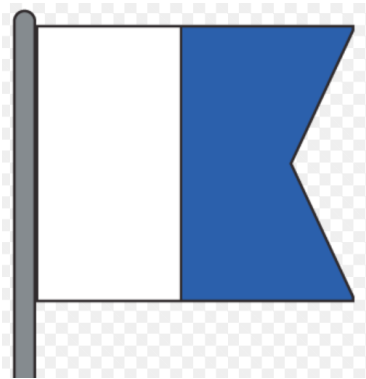


Figure 12 – Dive flag

13. Programme

Anchor Installation – 11/07/2019

Activity 1 Pipe Tow – 14/07/2019

Activity 2 - Pipe pull in [Restricted Area]– 15/07/2019 – 72hrs

Activity 3 – Post pull dive works (burial) [Restricted Area] – 16/07/2019 until 28/07/2019

Please note that these are all subject to operational and weather restraints

14. General Safety Advice

Please be aware that by virtue of their mode of operation and the equipment deployed the MV Apollo, Voe Jarl, Rhona, Shuna and the MV Normand Service (piling operations) will be Restricted in their Ability to Manoeuvre (RAM) as defined under COLREGs (International Regulations for Preventing Collisions at Sea 1972, Rule 3). Masters of vessels are therefore requested to maintain their vessels and gears at a minimum safe distance from these vessels of 500 metres when it is undertaking it work and showing the appropriate shapes and lights in accordance with COLREGs Rule 18.

In order to not compromise the safety of the MV Apollo and the MV Normand Service, the crew of each, and each vessel’s ability to undertake its contracted works, fishermen who have static fishing gears deployed within the defined Moray East site (see Figure 2) are requested to provide the coordinates of such deployed gears in DMS and details of whether the surface markers used are visible at all states of visibility to Jen Miller using the below contact information (Section 58 of the Merchant Shipping Act 1995).

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

Fishermen who have static gears deployed beyond 12 nm are reminded that static gear must be marked in accordance with Commission Implementing Regulation (EU) No. 404/2011 (<https://www.gov.uk/guidance/markings-of-fishing-gear-retrieval-and-notification-of-lost-gear#marking-of-fishing-gear>).

The Scottish Ministers have authorised the use of the following safety zones as per Notice to Mariners to follow:

1. A 500 metre radius around each WTG and OSP where construction works are taking place that include sensitive activities being undertaken by vessels RAM. A maximum of three of such zones is permitted at any one time.
2. A 50 metre radius around partially completed WTGs and OSPs where work is not underway and the risk assessments identify a need.
3. A 50 metre radius around each completed WTG and OSP prior to commissioning and as required by a risk assessment process.

All mariners are requested to give all construction and support vessels a wide berth.

Mariners are requested to navigate with caution, to use all means appropriate to aid safe navigation as defined under COLREGs Rule 7, and keep continued watch on VHF Ch. 16, 87 and 73 when navigating the area.

15. Fisheries Liaison

Fisheries liaison associated with the activity will be co-ordinated by Brown and May Marine. For any commercial fishery queries please contact:

Jen Miller - Brown and May Marine Ltd.

Email: jen.miller@brownmay.com

Tel: +44 1379 872148 / + 44 7519 106002

Fisheries liaison support is also available through the Fisheries Liaison Officer onboard of the MV Apollo.

Contacts provided below:

Name: George Soutar

Email: george.soutar@btinternet.com

Mobile: +44 7751 145831

MORAY EAST WEEKLY NOTICE OF OPERATIONS	Issue Date	08/07/2019
	Ref: 8460001-PC0010-MWE-REP-0016	Rev: 01

16. Distribution List

The distribution of this notice is as per email recipient's header. A central list of recipients is maintained by the Marine Coordinator; if you are not the appropriate recipient of these notices, or do not wish to receive the notices in the future, please contact us at the address included in Section 1 of this notice.

17. Website

The official website of Moray Offshore Windfarm (East) Limited can be found at:

<http://www.morayoffshore.com/moray-east/the-project/>

This website will contain all Notices to Mariners (NtMs) published by Moray East during the construction phase of the project, Weekly Notices of Operations and general information about the project.